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A NEW SUBSPECIES OF RHUS CHONDROLOMA (ANACARDIACEAE) FROM MEXICO

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During my biosystematic investigation of *Rhus* subg. *Lobadium* (Young, 1975), a new subspecies of *Rhus chondroloma* Standley was discovered. Because the new subspecies and *R. chondroloma* ssp. *chondroloma* are involved in hybrid complexes with *Rhus standleyi* Barkley it is desirable to publish the description of this new taxon before the details of hybridization are presented.

Rhus chondroloma Standley ssp. **huajuapanensis** Young, ssp. nov. (fig. 1). A ssp. *chondroloma* differt: rami et petioli et segmenta rachidis et foliola pubescentes; foliola parviora et numerosiora.

Type: Mexico, Oaxaca, distrito Huajuapan, ca 2 mi N of Huajuapan de Leon, on limestone palm lands along Mex Hwy 190, ca 1620 m, 22 Jan 1974, *S. L. Buchmann and D. A. Young 1–96*. Holotype: RSA; isotypes: MEXU, TEX, UC, US.

Aromatic evergreen shrub or small tree 1–6 m high, with relatively stout, brownish, densely pubescent twigs, dotted with reddish lenticels. Leaves pinnately compound, 3–9 leaflets (most frequently 7), 7.0–10.0 (8.5; numbers in parentheses are the mean for a particular character) cm long; leaflets coriaceous, entire, slightly revolute, margin white-corneous, conspicously pallid-veined, bluish-green above, pale green below; terminal leaflet 2.0–4.0 (3.0) cm long, 1.5–4.0 (2.5) cm wide, distinctly obovate, apex obtuse to rounded (rarely retuse to emarginate), base obtuse; lateral leaflets 2.0–4.0 (3.0) cm long, 1.5–2.5 (1.7) cm wide, elliptic to oval, obtuse at both ends, sessile to subsessile; upper surface of leaflets pilose to puberulous, veins densely pubescent, margins ciliate, lower surface pilose, also densely covered with sessile orange-glandular trichomes. Petioles 1.0–3.0 (1.9) cm long, wingless; rachis segments 1.0–2.5 (1.8) cm long, distinctly winged; petioles and rachis

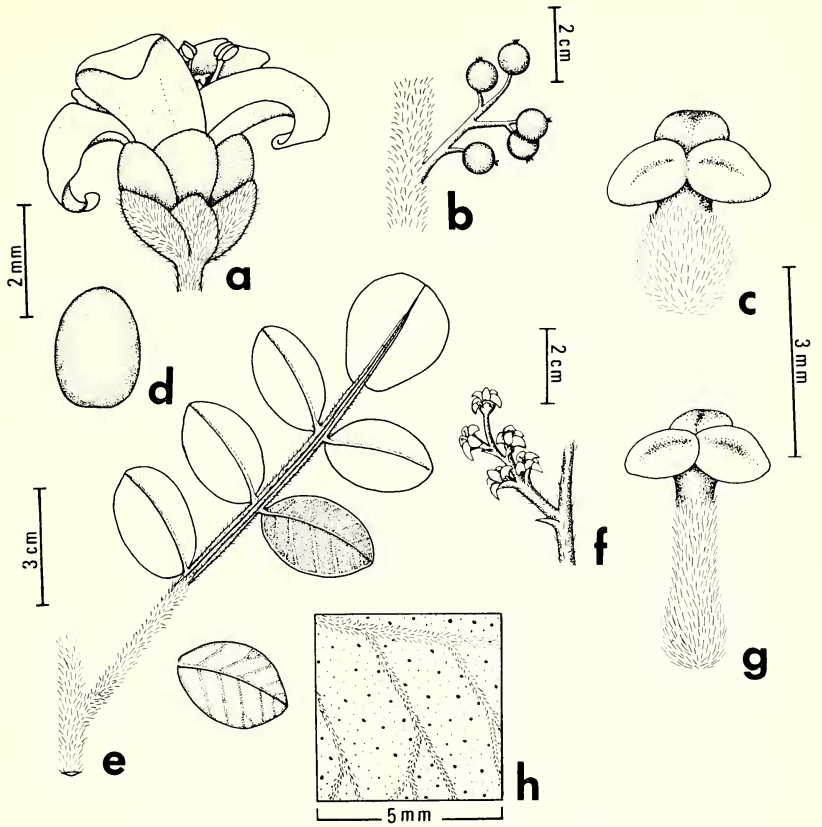

FIG. 1. *Rhus chondroloma* ssp. *huajuapanensis*. a, male flower; b, fruits; c, pistil of female flower; d, sepal; e, leaf; f, inflorescence; g, pistil of male flower; h, lower surface of leaflet (dark dots represent glandular trichomes).

segments covered with a dense soft pubescence. Inflorescences small, dense, terminal spikes, ca 1–4 cm long, slightly narrower. Bracts ovate-deltoid, ca 1–2 mm long, 1.5–2.0 mm wide, densely pubescent on outer surface with simple and orange-glandular trichomes, glabrous on inner surfaces. Sepals greenish-pink, rotund, ca 1–2 mm in diameter, sparingly ciliate with simple and orange-glandular trichomes. Petals white, oval, sexually dimorphic (smaller in male-sterile flowers), ca 2.5–4.0 (3.4) mm long, ca 1.5–2.5 (2.0) mm wide, glabrous, not ciliate. Stamens smaller than sepals in male-sterile flowers, slightly longer than sepals in hermaphrodites. Styles 3, more or less distinct. Fruit a drupe, pubescent with reddish-orange glandular trichomes and long simple trichomes, ca 8–10 mm in diameter.

HABITAT AND DISTRIBUTION (fig. 2): Endemic to the limestone soils in the area surrounding Huajuapan de Leon, Oaxaca, and adjacent Puebla,

Mexico. Some common associates are: *Amelanchier denticulata, Tecoma stans, Lippia* spp., *Mimosa* spp., and *Ptelea trifoliolata.*

Specimens examined: Mexico, Oaxaca, Entre Los Cerros Jicota y Amarillo, 2300 m, *Cabrera 32* (ENCB); between Tlaxiaco and Teposcolula, *Camp 2320* (ENCB, NY); Cerro Solo, 7 km al NE de Tepeleme, 2350 m, *Cruz Cisneros 2108* (ENCB, DS, MICH, MSC); in limy soil of xeric hillside in palm land ca 8 mi N of Huajuapan de Leon, *Rowell, Webster, and Barkley 17M579* (male) and *17M580* (female) (ARIZ, ENCB, MICH, MSC, TEX, UC); Magdalena Jicotlan, distrito de Coixtlahuaca, 2100 m, *Rzedowski 26688* (DS, ENCB, MICH, MSC); on limestone 6 mi NW of Huajuapan de Leon, 6200 ft, *Webster, Miller, and Miller 11436* (MEXU, GH). Puebla, limestone hills with shrubby vegetation, Mex Hwy 125, 0.9 mi NE of Acatepec, *Denton 1485* (MICH); Chila, hillslope, *Saunder s.n.* (ENCB).

Key to subspecies of *Rhus chondroloma*

a. Leaflets mostly trifoliolate (1–7), often unifoliolate, glabrous; terminal leaflet 4.5–6.5 cm long, 2.5–5.0 cm wide, lateral leaflets 2.5–4.5 cm long, 1.5–3.0 cm wide; petioles and rachis segments glabrous; Guerrero and Puebla. . . . . *R. chondroloma* ssp. *chondroloma*

aa. Leaflets mostly 7 (3–9), pubescent; terminal leaflet 3.0–4.0 cm long, 1.5–4.0 cm wide; lateral leaflets 2.0–4.0 cm long, 1.5–2.5 cm wide; branches, petioles and rachis segments pubescent; Oaxaca. . . . . *R. chondroloma* ssp. *huajuapanensis*

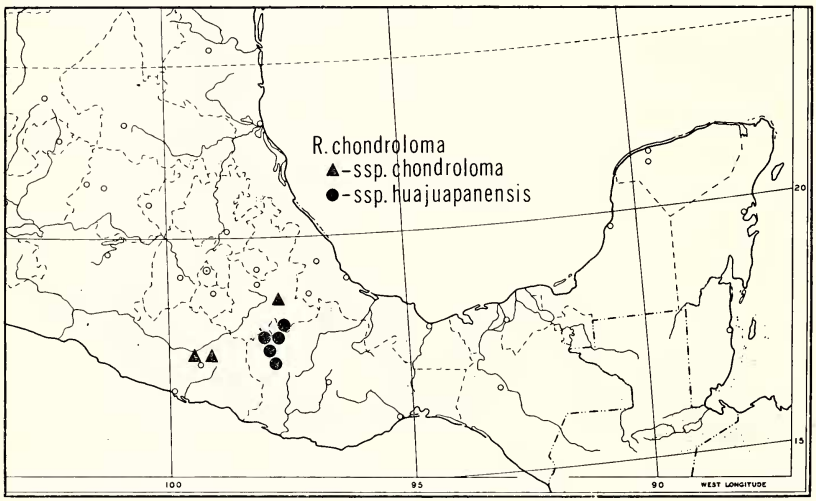

Fig. 2. Geographical distribution of the two subspecies of *Rhus chondroloma.* (Base map used by permission of the editor of Goode Base Maps, copyright by The University of Chicago Department of Geography).

Rhus chondroloma ssp. *huajuapanensis* differs most noticeably from *R. c.* ssp. *chondroloma* (Standley, 1936) in its markedly pubescent branches, petioles, rachis segments, and leaflets and in its smaller, more numerous leaflets. *Rhus c.* ssp. *huajuapanensis* appears to flower mainly from May to July, although a few flowers were present on one herbarium specimen examined collected in January. My collections in January were all in bud; mature fruits were present in September. The species is subdioecious; morphologically bisexual flowers were present, but either the anthers or ovules appeared to be nonfunctional. No pollinators were observed.

In the herbarium material examined, this subspecies was consistently identified as *Rhus duckerae* Barkley, and it keys to *R. duckerae* in Barkley's (1937) key. *Rhus c.* ssp. *huajuapanensis* is quite distinct from the type of *R. duckerae* (US!), which is the only collection of the latter taxon. The status of *R. duckerae* as a distinct species is questionable. Preliminary studies suggest that *R. duckerae* is actually a hybrid between *R. oaxacana* Loesen. and *R. standleyi* (Young, 1975).

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